

variables (N=70) extrapolated suggests that titer can vary linearly to the concentration of 5-methylthioadenosine in the cell culture medium showing that higher titer can be obtained on increasing 5-methylthioadenosine concentration in the cell culture medium.

Example 4

[0088] The impact of nicotinamide on a recombinant protein (VEGFR binding protein 1) titer was also studied by investigating the protein titer (g/L) at different concentrations of nicotinamide present in the cell culture medium.

[0089] An enriched medium (soy hydrolysate) comprising nicotinamide was added to the cell culture medium at varying concentrations. FIG. 4 shows the correlation between the concentration of nicotinamide present in the soy hydrolysate added to the cell culture medium with the titer of VEGFR binding protein 1. As seen in FIG. 4, the regression line relating to the variables (N=70) extrapolated suggests that titer varied linearly to the concentration of nicotinamide in the soy hydrolysate, suggesting that higher titer can be obtained on increasing nicotinamide concentration in the cell culture medium.

Example 5

[0090] Based on the correlation data obtained from studying the effect of nicotinamide concentration in enriched medium (soy hydrolysate) supplemented to the cell culture medium (Example 4, FIG. 4), an estimation as to the optimum concentration of nicotinamide in a cell culture was made. FIG. 5 shows the regression line relating to the variables (N=70) extrapolated suggests that titer can vary linearly to the concentration of nicotinamide in the cell culture medium, suggesting that higher titer can be obtained on increasing nicotinamide concentration in the cell culture medium.

- What is claimed is:
1. A method for culturing eukaryotic cells for increasing production of a protein, comprising the steps of:  
culturing cells in a defined cell culture medium;  
supplementing the cell culture medium with nicotinamide, wherein concentration of the nicotinamide is about 50 nM to about 2000 nM; and  
producing a protein in the eukaryotic cells,  
wherein the supplementation with nicotinamide increases a titer of the protein.
  2. The method of claim 1, wherein the titer of the protein is at least about 2% greater than another method with a cell culture medium that does not have at least about 50 nM nicotinamide.
  3. The method of claim 1, wherein the eukaryotic cells include at least one selected from the group consisting of: Baby Hamster Kidney cell lines, Chinese Hamster Ovary cell lines, Murine myeloma cell lines, Mouse myeloma cell lines, Human embryonic kidney cell lines, Human-retina-derived cell lines, and Amniocyte cell lines.
  4. The method of claim 1, wherein the protein is secreted in the medium.
  5. The method of claim 1, wherein the cell culture medium does not have a protein derived from an animal.
  6. The method of claim 1, wherein the cell culture medium is a serum-free medium.
  7. The method of claim 1, wherein the cell culture medium is a chemically-defined medium.
  8. A method for producing a protein, comprising:  
introducing into a cell a nucleic acid comprising a nucleotide sequence encoding a protein;  
culturing the cell in a cell culture medium comprising at least about 50 nM nicotinamide or at least about 10 nM 5-methylthioadenosine; and  
producing the protein in the cell.

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